	Type	Hits	Search Text	DBs
1	BRS	27	"9100917"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
2	BRS	6	"5811272"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
3	BRS	399421	polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
4	BRS	1	(4-hydroxybutyric or 4-hydroxybutyrate) near3 coenzyme	USPAT; US-PGPUB; EPO; JPO; DERWENT;
5	BRS	1	polyester and ((4-hydroxybutyric or 4-hydroxybutyrate) near3 coenzyme)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
6	BRS	0	polyhydroxyalkanoic near1 synthase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
7	BRS	0	hydroxybutyratec near1 synthase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
8	BRS	5	hydroxybutyrate near1 synthase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
9	BRS	0	(hydroxybutyrate near1 synthase) and (polyester and ((4-hydroxybutyric or 4-hydroxybutyrate) near3 coenzyme))	USPAT; US-PGPUB; EPO; JPO; DERWENT;
10	BRS	5	(hydroxybutyrate near1 synthase) and polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
11	BRS	159	hydroxybutyrate near10 polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
12	BRS	0	(hydroxybutyrate near10 polyester) and ((4-hydroxybutyric or 4-hydroxybutyrate) near3 coenzyme)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
13	BRS	276	4-hydroxybutyric near1 acid	USPAT; US-PGPUB; EPO; JPO; DERWENT;
14	BRS	10	poly near1 (4-hydroxybutyric near1 acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
15	BRS	8	"958367"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
16	BRS	1	hein AND sohling	USPAT; US-PGPUB; EPO; JPO; DERWENT;

	Time[illegible]amp	Comments	Error Defini[illegible]	Errors
1	2003/09/17 12:43			0
2	2001/06/04 10:24			0
3	2001/06/04 10:44			0
4	2001/06/04 10:46			0
5	2001/06/04 10:46			0
6	2001/06/04 10:47			0
7	2001/06/04 10:47			0
8	2001/06/04 10:47			0
9	2001/06/04 10:48			0
10	2001/06/04 10:55			0
11	2001/06/04 10:50			0
12	2001/06/04 10:51			0
13	2001/06/04 10:55			0
14	2001/06/04 10:58			0
15	2001/06/04 10:58			0
16	2001/06/04 11:18			0

	Type	Hits	Search Text	DBs
17	BRS	9	"06225"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
18	BRS	7	"9306225"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
19	BRS	2	"9836078"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
20	BRS	1126	XL1-blue	USPAT; US-PGPUB; EPO; JPO; DERWENT;
21	BRS	599	XL1-blue and (Escherichia near1 coli)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
22	BRS	98	XL1-blue near3 (Escherichia near1 coli)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
23	BRS	98	(XL1-blue near3 (Escherichia near1 coli)) and method	USPAT; US-PGPUB; EPO; JPO; DERWENT;
24	BRS	86	((XL1-blue near3 (Escherichia near1 coli)) and method) and production	USPAT; US-PGPUB; EPO; JPO; DERWENT;
25	IS&R	3	("5512468").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT;
26	BRS	0	(("5512468").PN.) and (("5707841").PN.) and xl1-blue	USPAT; US-PGPUB; EPO; JPO; DERWENT;
27	IS&R	0	("l3 and xl1-blue").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT;
28	IS&R	0	("l1 and xl1-blue").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT;
29	IS&R	0	("l8 and xl1-blue").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT;
30	IS&R	2	("5707841").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT;
31	BRS	248067	co-expression or expression	USPAT; US-PGPUB; EPO; JPO; DERWENT;
32	BRS	2910	(co-expression or expression) and (pha or polyhydroxyalkanoic)	USPAT; US-PGPUB; EPO; JPO; DERWENT;

	Time[illegible]amp	Comments	Error D finit[illegible]	Errors
17	2001/06/04 11:58			0
18	2001/06/04 11:58			0
19	2001/06/04 12:42			0
20	2001/10/18 12:52			0
21	2001/10/18 12:52			0
22	2001/10/18 12:53			0
23	2001/10/18 12:53			0
24	2001/10/18 12:53			0
25	2001/10/18 13:01			0
26	2001/10/18 13:00			0
27	2001/10/18 13:01			0
28	2001/10/18 13:01			0
29	2001/10/18 13:01			0
30	2001/10/18 13:01			0
31	2003/01/24 12:34			0
32	2003/01/24 12:34			0

	Type	Hits	Search Text	DBs
33	BRS	154	((co-expression or expression) and (pha or polyhydroxyalkanoic)) and polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
34	BRS	653	((co-expression or expression) and (pha or polyhydroxyalkanoic)) and fatty	USPAT; US-PGPUB; EPO; JPO; DERWENT;
35	BRS	244	(((co-expression or expression) and (pha or polyhydroxyalkanoic)) and fatty) and transferase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
36	BRS	43	((((co-expression or expression) and (pha or polyhydroxyalkanoic)) and fatty) and transferase) and polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
37	BRS	68	((((co-expression or expression) and (pha or polyhydroxyalkanoic)) and fatty) and polyester) and coA	USPAT; US-PGPUB; EPO; JPO; DERWENT;
38	BRS	92	(((co-expression or expression) and (pha or polyhydroxyalkanoic)) and fatty) and polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
39	BRS	801	((co-expression or expression) and (pha or polyhydroxyalkanoic)) and transferase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
40	BRS	43	((((co-expression or expression) and (pha or polyhydroxyalkanoic)) and transferase) and polyester) and Coa	USPAT; US-PGPUB; EPO; JPO; DERWENT;
41	BRS	59	(((co-expression or expression) and (pha or polyhydroxyalkanoic)) and transferase) and polyester	USPAT; US-PGPUB; EPO; JPO; DERWENT;
42	BRS	668	Huisman	USPAT; US-PGPUB; EPO; JPO; DERWENT;
43	BRS	6	(Huisman and (pha or polyhydroxyalkanoate)) and 4-hydroxy	USPAT; US-PGPUB; EPO; JPO; DERWENT;
44	BRS	75	Huisman and (pha or polyhydroxyalkanoate)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
45	BRS	24761	fusion near1 protein	USPAT; US-PGPUB; EPO; JPO; DERWENT;
46	BRS	1557	single near1 promoter	USPAT; US-PGPUB; EPO; JPO; DERWENT;
47	BRS	1073	(fusion near1 protein) and (single near1 promoter)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
48	BRS	4	(fusion near1 protein) near10 (single near1 promoter)	USPAT; US-PGPUB; EPO; JPO; DERWENT;

	Time[illegible]amp	Comments	Error Definit[illegible]	Errors
33	2003/01/24 12:34			0
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36	2003/01/24 12:53			0
37	2003/01/24 12:41			0
38	2003/01/24 12:41			0
39	2003/01/24 12:54			0
40	2003/01/24 12:54			0
41	2003/01/24 13:00			0
42	2003/01/24 13:00			0
43	2003/01/24 13:01			0
44	2003/01/24 13:01			0
45	2003/01/24 13:57			0
46	2003/01/24 13:57			0
47	2003/01/24 13:57			0
48	2003/01/24 13:58			0

	Type	Hits	Search Text	DBs
49	BRS	4303	recombinant near3 (fusion near1 protein)	USPAT; US-PGPUB; EPO; JPO; DERWENT;
50	BRS	2	"6329183"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
51	BRS	5	"6103956"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
52	BRS	4	"5858750"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
53	BRS	8392	pha or polyhydroxyalkanoic or polyhydroxyalkanoate	USPAT; US-PGPUB; EPO; JPO; DERWENT;
54	BRS	184	(pha or polyhydroxyalkanoic or polyhydroxyalkanoate) near2 synthase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
55	BRS	53	((pha or polyhydroxyalkanoic or polyhydroxyalkanoate) near2 synthase) and (coenzyme near1 a) and transferase	USPAT; US-PGPUB; EPO; JPO; DERWENT;
56	BRS	42	(((pha or polyhydroxyalkanoic or polyhydroxyalkanoate) near2 synthase) and (coenzyme near1 a) and transferase) and promoter	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
57	BRS	42	((((pha or polyhydroxyalkanoic or polyhydroxyalkanoate) near2 synthase) and (coenzyme near1 a) and transferase) and promoter) and (fatty or hydroxybutyric or hydroxybutyrate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
58	BRS	2	"6316262"	USPAT; US-PGPUB; EPO; JPO; DERWENT;
59	BRS	2	"6316262" and promoter	USPAT; US-PGPUB; EPO; JPO; DERWENT;
60	BRS	782	huisman	USPAT; US-PGPUB; EPO; JPO; DERWENT;
61	BRS	12	huisman and skraly	USPAT; US-PGPUB; EPO; JPO; DERWENT;

	Time[illegible]amp	C mments	Error Definit[illegible]	Errors
49	2003/01/24 13:58			0
50	2003/01/27 07:16			0
51	2003/01/27 07:20			0
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53	2003/09/17 12:57			0
54	2003/09/17 12:44			0
55	2003/09/17 12:44			0
56	2003/09/17 12:45			0
57	2003/09/17 12:45			0
58	2003/09/17 12:58			0
59	2003/09/17 13:01			0
60	2003/09/17 13:01			0
61	2003/09/17 13:01			0

(FILE 'HOME' ENTERED AT 12:56:21 ON 17 SEP 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, AGRICOLA' ENTERED AT 12:56:25 ON 17 SEP 2003

L1 40480 S PHA OR POLYHYDROXYALKANOIC OR POLYHYDROXYALKANOATE
L2 0 S L1 (1N) SYNTHASE0
L3 590 S L1 (1N) SYNTHASE
L4 22 S L3 AND FATTY AND PROMOTER
L5 10 S L3 AND FATTY AND TRANSFERASE
L6 1 S L5 AND PROMOTER
L7 9 DUP REM L5 (1 DUPLICATE REMOVED)

=> s l3 and (fatty or hydroxybutyric or hydroxybutyrate
UNMATCHED LEFT PARENTHESIS 'AND (FATTY'
The number of right parentheses in a query must be equal to the number of left parentheses.

=> s l3 and (fatty or hydroxybutyric or hydroxybutyrate)
L8 391 L3 AND (FATTY OR HYDROXYBUTYRIC OR HYDROXYBUTYRATE)

=> s l8 and transferase
L9 24 L8 AND TRANSFERASE

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 19 DUP REM L9 (5 DUPLICATES REMOVED)

L10 ANSWER 17 OF 19 MEDLINE on STN DUPLICATE 2
AN 97417812 MEDLINE
DN 97417812 PubMed ID: 9271870
TI Biosynthesis of poly(4-**hydroxybutyric** acid) by recombinant strains of Escherichia coli.
AU Hein S; Sohling B; Gottschalk G; Steinbuchel A
CS Institut fur Mikrobiologie der Westfalischen Wilhelms-Universitat Munster, Germany.
SO FEMS MICROBIOLOGY LETTERS, (1997 Aug 15) 153 (2) 411-8.
Journal code: 7705721. ISSN: 0378-1097.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199709
ED Entered STN: 19971008
Last Updated on STN: 19980206
Entered Medline: 19970924
AB The aim of this study was the production of the homopolyester poly(4-**hydroxybutyric** acid) (poly(4HB)) with recombinant strains of Escherichia coli. Wild-type strains and other widely used non-recombinant strains of E. coli are not able to produce polyhydroxyalkanoic acids (PHA) as storage compounds and cannot utilize 4-**hydroxybutyric** acid as sole carbon source. Accordingly, hybrid plasmids of pBluescript vectors were constructed which harbored the Alcaligenes eutrophus **PHA synthase** gene (phaC) and the Clostridium kluyveri orfZ putatively encoding a 4-**hydroxybutyric** acid-coenzyme A **transferase**. A 3.5-kb genomic SmaI/ApaI fragment from A. eutrophus, which comprises phaC, and a 1.8-kb genomic ApaI/EcoRI fragment from C kluyveri, which contained orfZ, were inserted into the SmaI and EcoRI sites of the vectors pKS- and pSK-, respectively. The two resulting plasmids pSKSE5.3 and pKSSE5.3 comprising phaC and orfZ colinear or antilinear to lacZ, respectively, were transformed into E. coli XL1-Blue. Recombinant strains synthesized the homopolyester poly(4HB), when the cells were cultivated in Luria-Bertani broth and if glucose and 4-**hydroxybutyric** acid were provided as carbon sources. If glucose was omitted, a copolyester of 3-**hydroxybutyric** acid and 4-**hydroxybutyric** acid was accumulated. The homopolyester poly(4HB) was also accumulated during cultivation of these strains in M9 mineral salts medium containing glucose plus 4-**hydroxybutyric** acid as carbon sources. Poly(4HB) could amount up to approximately 80% (w/w) of the cell dry matter if E. coli XL1-Blue harboring pKSSE5.3 was cultivated in M9 mineral salts medium and if the cultures were not sufficiently supplied with oxygen. 4HB was also incorporated into PHA if gamma-butyrolactone was used as carbon source. If levulinic acid, 4-hydroxyvaleric acid or gamma-valerolactone were used as carbon sources, only very low amounts of PHA were accumulated which did not contain 4-hydroxyalkanoic acids as constituents.